

## REMARKS

Claims 1-31 are pending in the application. Claim 31 has been amended above for clarification and not for reasons related to patentability. It is respectfully submitted that no new subject matter has been added by these amendments. Claims 1-31 are subject to restriction and/or election requirement.

The Examiner states that restriction to one of the following is required under 35 U.S.C. §121:

Group I: Claims 1-7, 14-18 and 25, classified in Class 714, Subclass 794;

Group II: Claims 8, 9, 19 and 20, classified in Class 714, Subclass 776;

Group III: Claims 10-13 and 21-24, classified in Class 714, Subclass 790;

Group IV: Claims 26-28 and 31, classified in Class 370, Subclass 209; or

Group V: Claims 29 and 30, classified in Class 714, Subclass 794.

Applicants respectfully request withdrawal of the previous election of Group III.

Please note that Claim 31 has been amended to properly depend on Claim 29, among other amendments. Based on this amendment, Applicants respectfully request that Claim 31 be reassigned to Group V, from Group IV.

Applicants respectfully request the cancellation of Claims 10-13, 21-24 and 26-28, without prejudice. Groups I, II and V remain.

Applicants provisionally elect, without prejudice and with traverse, Group I, containing Claims 1-7, 14-18 and 25, for examination on the merits.

The restriction requirement of Group I, Group II and Group V is respectfully traversed. Applicants traverse the restriction requirement because it is believed that the present application,

and the pending claims, may be combined and examined as one group of claims, rather than the three groups as indicated by the Examiner.

Restricted Groups I, II and V disclose an embodiment for  $(2^n, k)$  block coding and puncturing, while cancelled Groups III and IV disclose an embodiment for  $(m, k)$  block coding and puncturing. Applicants respectfully submit that the following groupings are appropriate:

1.  $(2^n, k)$  block coding:

Claims 1-7 recite a  $(2^n, k)$  encoding apparatus using an extended Reed-Muller code, Claims 14-18 recite a  $(2^n, k)$  encoding method using an extended Reed-Muller code in accordance with Claims 1-7, and Claims 1-7 and 25 recite a  $(2^n, k)$  encoding apparatus with a specific puncturing pattern.

Claims 8 and 9 recite a  $(2^n, k)$  encoding apparatus having a specific hardware structure, and Claims 19 and 20 recite a  $(2^n, k)$  encoding method having a specific hardware structure in accordance with Claims 8 and 9.

Claims 29-31 recite a  $(2^n, k)$  encoding method in accordance with Claim 25.

2.  $(m, k)$  block coding:

Claims 10-13 recite a  $(m, k)$  encoding apparatus having a sequence of length  $m$ , and Claims 21-24 recite a  $(m, k)$  encoding method in accordance with Claims 10-13.

Claims 26-28 recite a  $(m, k)$  encoding apparatus or method having a specific puncturing pattern.


Accordingly, Applicants respectfully propose that Groups I, II and V above can be classified into one group. No benefit is derived from maintaining the three remaining group restriction requirement, and withdrawal of the Restriction Requirement, restricting Groups I, II and V into three groups is respectfully requested. As the M.P.E.P. states, separate classification is not sufficient if the entire case can be searched at once without serious burden, and it is respectfully submitted that withdrawal of the five group Restriction Requirement is warranted, and reclassification of the remaining claims into a single group is respectfully requested. Should

the Examiner agree, Claims 1-7, 8, 9, 14-18, 19, 20, 25 and 29-31 would remain in the case for examination on the merits.

Should the Examiner disagree, as stated above, Applicants elect Group I, containing Claims 1-7, 14-18 and 25, and also reserve the right to file a divisional application to the non-elected claims.

Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,



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